Applicants : Riccardo Dalla-Favera and Raju S.K. Chaganti

U.S. Serial No.: 09/761,117

Filed : January 16, 2001

Page 2

47. (New) A method for determining whether an agent is useful for treating non-Hodgkin's lymphoma, which comprises determining the amount of nucleic acid having the sequence set forth in SEQ. ID NO:1 present in a suitable sample from a afflicted with non-Hodgkin's lymphoma, subject administering to the subject a suitable amount of the agent under suitable conditions, (c) after a suitable period of time, again determining the amount of nucleic acid having the sequence set forth in SEQ. ID NO:1 present in a suitable sample from the subject, a difference between the nucleic acid amounts determined in steps (a) and (c) indicating that the agent is useful for treating non-Hodgkin's lymphoma.

48. (New) A method for determining whether a subject is afflicted with B-cell lymphoma comprising:

- (a) obtaining a DNA sample from the subject;
- (b) cleaving the DNA in the sample into fragments;
- (c) separating the DNA fragments by size fractionation;
- (d) hybridizing the separated DNA fragments with a nucleic acid molecule comprising a region of at least 15 nucleotides capable of specifically hybridizing with the nucleic acid sequence of the bcl-6 locus, so as to detect the DNA fragment containing the bcl-6 sequence; and
- (e) comparing the DNA fragment detected in step (d) with the corresponding DNA fragment from a subject known not to be afflicted with B-cell lymphoma, a difference in size between these fragments indicating that the subject is afflicted with Bcell lymphoma.
- 49. (New) The method of claim 48, where in step (b), the DNA sample is cleaved into fragments by means of a restriction

tra

Applicants : Riccardo Dalla-Favera and Raju S.K. Chaganti

U.S. Serial No.: 09/761,117

Filed : January 16, 2001

Page 3

enzyme.

(New) The method of claim 48, wherein the size fractionation 50. in step (c) is performed by means of a polyacrylamide or agarose gel.

- (New) The method of claim 48, wherein in step (d), the nucleic 51. acid molecule is labeled with a detectable marker.
- (New) The method of claim 51, wherein the detectable marker is 52. a radio-labeled molecule, a fluorescent molecule, an enzyme, or a ligand.
- (New) The method of claim 48, further comprising transferring 53. the DNA fragments from step (c) onto a solid matrix prior to step (d).
- (New) A method of treating a subject afflicted with non-54. Hodgkin's lymphoma, comprising administering to the subject's lymphoma cells an effective amount of an antisense molecule capable of hybridizing to the nucleic acid molecule having the sequence set forth in SEQ. ID NO:1, thereby treating the subject.
- (New) A method of treating a subject afflicted with non-55. Hodgkin's lymphoma, comprising administering to the subject's lymphoma cells an effective amount of an antagonist capable of blocking the expression of the polypeptide having the amino acid sequence set forth in SEQ. ID NO:2, thereby treating the subject.